

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/528,227
Source: PCT
Date Processed by STIC: 3-25-05

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PCT

RAW SEQUENCE LISTING

DATE: 03/25/2005

PATENT APPLICATION: US/10/528,227

TIME: 09:36:18

Input Set : D:\SONN068US.txt

Output Set: N:\CRF4\03252005\J528227.raw

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3 <110> APPLICANT: CRACKOWER, MICHAEL A.
4   PENNINGER, JOSEF M.
6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING HEART DISEASE
8 <130> FILE REFERENCE: SONN:068US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/528,227
11 <141> CURRENT FILING DATE: 2005-03-18
13 <150> PRIOR APPLICATION NUMBER: PCT/CA2003/001387
14 <151> PRIOR FILING DATE: 2003-09-19
16 <150> PRIOR APPLICATION NUMBER: CA 2,400,254
17 <151> PRIOR FILING DATE: 2002-09-19
19 <160> NUMBER OF SEQ ID NOS: 4
21 <170> SOFTWARE: PatentIn version 3.1
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24 <211> LENGTH: 3410
25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
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85 actgatccac ttaacccctct cacagcagag gacaaagaat tgctctggca ttttagatac 1740
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127 gagagagtgc catttgtgct aacccctgac ttctctttg tgatgggaac ttctggaaag 3000
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144 <210> SEQ ID NO: 2

145 <211> LENGTH: 1102

146 <212> TYPE: PRT

147 <213> ORGANISM: Homo sapiens

149 <400> SEQUENCE: 2

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154 20 25 30
156 Ser Ser Met Glu Leu Ile Pro Ile Glu Phe Val Leu Pro Thr Ser Gln
157 35 40 45
159 Arg Lys Cys Lys Ser Pro Glu Thr Ala Leu Leu His Val Ala Gly His
160 50 55 60
162 Gly Asn Val Glu Gln Met Lys Ala Gln Val Trp Leu Arg Ala Leu Glu
163 65 70 75 80
165 Thr Ser Val Ala Ala Asp Phe Tyr His Arg Leu Gly Pro His His Phe
166 85 90 95
168 Leu Leu Leu Tyr Gln Lys Lys Gly Gln Trp Tyr Glu Ile Tyr Asp Lys

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171 Tyr  Gln  Val  Val  Gln  Thr  Leu  Asp  Cys  Leu  Arg  Tyr  Trp  Lys  Ala  Thr
172          115          120          125
174 His  Arg  Ser  Pro  Gly  Gln  Ile  His  Leu  Val  Gln  Arg  His  Pro  Pro  Ser
175          130          135          140
177 Glu  Glu  Ser  Gln  Ala  Phe  Gln  Arg  Gln  Leu  Thr  Ala  Leu  Ile  Gly  Tyr
178 145          150          155          160
180 Asp  Val  Thr  Asp  Val  Ser  Asn  Val  His  Asp  Asp  Glu  Leu  Glu  Phe  Thr
181          165          170          175
183 Arg  Arg  Gly  Leu  Val  Thr  Pro  Arg  Met  Ala  Glu  Val  Ala  Ser  Arg  Asp
184          180          185          190
186 Pro  Lys  Leu  Tyr  Ala  Met  His  Pro  Trp  Val  Thr  Ser  Lys  Pro  Leu  Pro
187          195          200          205
189 Glu  Tyr  Leu  Trp  Lys  Lys  Ile  Ala  Asn  Asn  Cys  Ile  Phe  Ile  Val  Ile
190          210          215          220
192 His  Arg  Ser  Thr  Thr  Ser  Gln  Thr  Ile  Lys  Val  Ser  Pro  Asp  Asp  Thr
193 225          230          235          240
195 Pro  Gly  Ala  Ile  Leu  Gln  Ser  Phe  Phe  Thr  Lys  Met  Ala  Lys  Lys  Lys
196          245          250          255
198 Ser  Leu  Met  Asp  Ile  Pro  Glu  Ser  Gln  Ser  Glu  Gln  Asp  Phe  Val  Leu
199          260          265          270
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216 Ser  Leu  Trp  Asp  Cys  Asp  Arg  Lys  Phe  Arg  Val  Lys  Ile  Arg  Gly  Ile
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220          370          375          380
222 Ala  Asn  Ile  Gln  His  Gly  Gln  Gln  Val  Leu  Cys  Gln  Arg  Arg  Thr  Ser
223 385          390          395          400
225 Pro  Lys  Pro  Phe  Thr  Glu  Glu  Val  Leu  Trp  Asn  Val  Trp  Leu  Glu  Phe
226          405          410          415
228 Ser  Ile  Lys  Ile  Lys  Asp  Leu  Pro  Lys  Gly  Ala  Leu  Leu  Asn  Leu  Gln
229          420          425          430
231 Ile  Tyr  Cys  Gly  Lys  Ala  Pro  Ala  Leu  Ser  Ser  Lys  Ala  Ser  Ala  Glu
232          435          440          445
234 Ser  Pro  Ser  Ser  Glu  Ser  Lys  Gly  Lys  Val  Arg  Leu  Leu  Tyr  Tyr  Val
235          450          455          460
237 Asn  Leu  Leu  Leu  Ile  Asp  His  Arg  Phe  Leu  Leu  Arg  Arg  Gly  Glu  Tyr
238 465          470          475          480
240 Val  Leu  His  Met  Trp  Gln  Ile  Ser  Gly  Lys  Gly  Glu  Asp  Gln  Gly  Ser
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247           515           520           525
249 Leu Pro Lys His Gln Pro Thr Pro Asp Pro Glu Gly Asp Arg Val Arg
250           530           535           540
252 Ala Glu Met Pro Asn Gln Leu Arg Lys Gln Leu Glu Ala Ile Ile Ala
253 545           550           555           560
255 Thr Asp Pro Leu Asn Pro Leu Thr Ala Glu Asp Lys Glu Leu Leu Trp
256           565           570           575
258 His Phe Arg Tyr Glu Ser Leu Lys His Pro Lys Ala Tyr Pro Lys Leu
259           580           585           590
261 Phe Ser Ser Val Lys Trp Gly Gln Gln Glu Ile Val Ala Lys Thr Tyr
262           595           600           605
264 Gln Leu Leu Ala Arg Arg Glu Val Trp Asp Gln Ser Ala Leu Asp Val
265           610           615           620
267 Gly Leu Thr Met Gln Leu Leu Asp Cys Asn Phe Ser Asp Glu Asn Val
268 625           630           635           640
270 Arg Ala Ile Ala Val Gln Lys Leu Glu Ser Leu Glu Asp Asp Asp Val
271           645           650           655
273 Leu His Tyr Leu Leu Gln Leu Val Gln Ala Val Lys Phe Glu Pro Tyr
274           660           665           670
276 His Asp Ser Ala Leu Ala Arg Phe Leu Leu Lys Arg Gly Leu Arg Asn
277           675           680           685
279 Lys Arg Ile Gly His Phe Leu Phe Trp Phe Leu Arg Ser Glu Ile Ala
280           690           695           700
282 Gln Ser Arg His Tyr Gln Gln Arg Phe Ala Val Ile Leu Glu Ala Tyr
283 705           710           715           720
285 Leu Arg Gly Cys Gly Thr Ala Met Leu His Asp Phe Thr Gln Gln Val
286           725           730           735
288 Gln Val Ile Glu Met Leu Gln Lys Val Thr Leu Asp Ile Lys Ser Leu
289           740           745           750
291 Ser Ala Glu Lys Tyr Asp Val Ser Ser Gln Val Ile Ser Gln Leu Lys
292           755           760           765
294 Gln Lys Leu Glu Asn Leu Gln Asn Ser Gln Leu Pro Glu Ser Phe Arg
295           770           775           780
297 Val Pro Tyr Asp Pro Gly Leu Lys Ala Gly Ala Leu Ala Ile Glu Lys
298 785           790           795           800
300 Cys Lys Val Met Ala Ser Lys Lys Lys Pro Leu Trp Leu Glu Phe Lys
301           805           810           815
303 Cys Ala Asp Pro Thr Ala Leu Ser Asn Glu Thr Ile Gly Ile Ile Phe
304           820           825           830
306 Lys His Gly Asp Asp Leu Arg Gln Asp Met Leu Ile Leu Gln Ile Leu
307           835           840           845
309 Arg Ile Met Glu Ser Ile Trp Glu Thr Glu Ser Leu Asp Leu Cys Leu
310           850           855           860
312 Leu Pro Tyr Gly Cys Ile Ser Thr Gly Asp Lys Ile Gly Met Ile Glu
313 865           870           875           880
315 Ile Val Lys Asp Ala Thr Thr Ile Ala Lys Ile Gln Gln Ser Thr Val

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322          915          920          925
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325          930          935          940
327 Gly Asp Arg His Asn Asp Asn Ile Met Ile Thr Glu Thr Gly Asn Leu
328 945          950          955          960
330 Phe His Ile Asp Phe Gly His Ile Leu Gly Asn Tyr Lys Ser Phe Leu
331          965          970          975
333 Gly Ile Asn Lys Glu Arg Val Pro Phe Val Leu Thr Pro Asp Phe Leu
334          980          985          990
336 Phe Val Met Gly Thr Ser Gly Lys Lys Thr Ser Pro His Phe Gln Lys
337          995          1000          1005
339 Phe Gln Asp Ile Cys Val Lys Ala Tyr Leu Ala Leu Arg His His
340          1010          1015          1020
342 Thr Asn Leu Leu Ile Ile Leu Phe Ser Met Met Leu Met Thr Gly
343          1025          1030          1035
345 Met Pro Gln Leu Thr Ser Lys Glu Asp Ile Glu Tyr Ile Arg Asp
346          1040          1045          1050
348 Ala Leu Thr Val Gly Lys Asn Glu Glu Asp Ala Lys Lys Tyr Phe
349          1055          1060          1065
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L:10 M:270 C: Current Application Number differs, Replaced Current Application Number